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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,242	05/23/2005	Georg Gros	DNAG-291 (10412293)	9240
24972 7590 01/06/2009 FULBRIGHT & JAWORSKI, LLP 666 FIFTH AVE NEW YORK, NY 10103-3198			EXAMINER VIJAYAKUMAR, KALLAMBELLA M	
			ART UNIT 1793	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/511,242	<b>Applicant(s)</b> GROS ET AL.	
	<b>Examiner</b> KALLAMBELLA VIJAYAKUMAR	<b>Art Unit</b> 1793	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31,33-49,51-69 and 71-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36,71-73,75-77 and 79 is/are allowed.
- 6) ☒ Claim(s) 31,33-35,37-49,51-69,74-78 and 80 is/are rejected.
- 7) ☒ Claim(s) 37,38 and 47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

- Applicant's amendment filed with the arguments on 09/19/2008 has been entered.
- Claims 31, 34-36, 47, 52, 58-59, 63-64 and 69 were amended. Status of claim-69 is wrong and it should read as "currently amended". Claims 32, 50 and 70 were cancelled. New claims 71-80 were added. Claims 31, 33-49, 51-69 and 71-80 as amended are currently pending with the application.
- Applicant's amendment overcomes the Claim Objections except for claim-47, and Rejections cited less than 35 USC 112-II Para cited in the last office action.

***Claim Objections***

- Claims 37-38 are objected to because of the following informalities: They depend upon a cancelled claim -32. Appropriate correction is required.
- Claim 47 with a range of 0-75 wt% for substance C makes the component optional and does not further limit the positive presence of the component in claim-31.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 63-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 63-68 recites the limitation "The process according to claim 56" in preamble. There is insufficient antecedent basis for this limitation in the claim. These claims should depend on the process claim-57.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 31, 33-35, 37-49, 51-69, 74, 78 and 80 are rejected under 35 U.S.C. 103(a) as obvious over either Wiechelhaus et al (WO 99/24545) or Wiechelhaus et al (US 6,479,103).

The US patent 6,479,103 issued to Wiechelhaus et al is being used as the English Translation of the WO Document.

Wiechelhaus et al teach the composition of a corrosion resistant coating composition comprising 10 to 40 wt. % of an organic binder; 0 to 15 wt.% of a silicate-based anti-corrosive pigment <component-D>, 40 to 70 wt.% of powdered extenders that include zinc, aluminum, carbon black <component C>, graphite and/or molybdenum disulfide <component-B>, iron phosphide <component-A>, SnO/Sb<sub>2</sub>O<sub>3</sub> doped-BaSO<sub>4</sub> <component-B/A>, 0 to 30 wt.% of a solvent, and the organic binder consists of at least

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one epoxy, at least one curing agent selected from guanidine, substituted guanidines, substituted ureas, cyclic tertiary amines and mixtures thereof, together with at least one blocked polyurethane resin <post cross-linking agent>. The amine curing agents further meet the limitation of corrosion inhibitor that is not in particulate form (Abstract; CI-3, Ln 1-29; CI-5, Ln 49-64; Tables 1-3; CI-6, Ln 34). The specific examples in Table-1 teach the addition of a mixture of pigments/conductive agents, phthalocyanine <corrosion inhibitor which is not in particle form> and modified castor oil <additive> <Tbl-1>. The prior art further teaches an example containing Zn, MoS<sub>2</sub>, doped silica and phthalocyanine <Tbl-3, Comparative>. The steel sheet metal was cleaned, optionally chromated <precoated> and then coated with 2-5 micron coating, whereby the particles present in the coating are necessarily less than 2 micron in diameter for a monolayer film over a surface with a 2-micron thickness, that meets the limitation of particle sizes in the claims.

The prior art fails to teach a composition containing the pigments in the ratio of  $\Sigma(B+C)/\Sigma(A+B+C)$  being 0.25-99.5 wt% and pigments ratio of  $\Sigma(A+B+C)/\Sigma(A+B+C+D)$  being 30-99.0 wt% per claim-31; or ratios per claims 74 and 80.

However, the prior art teaches the addition of a blend of pigments and addition of even miniscule amount of iron phosphide in examples 1 and 3, or MOS<sub>2</sub> in examples 9 and 10 <Tbl-1> would result in pigment ratios close to the instant claimed ranges. Further, it would have been obvious to a person of ordinary skilled in the art to add these pigments over prior art disclosure, because they are corrosion protection pigments and the composition has the same common utility with instant claimed composition as corrosion-resistant conductive coatings for metals (Spec, US 2006/0058423; P-0001) in obviously arriving at instant composition.

For example, the Sample- 9 contains 25 pbw Zn (C), 20 pbw FeP (A) and 5 pbw doped silica (D); and an addition of as low as 0.1 pbw of MoS<sub>2</sub> in Ex-9 will result in

$$\Sigma(B+C) / \Sigma(A+B+C) = (0.1+35) / (0.1+35+20) = 63.75 \text{ wt\% and}$$

$$\Sigma(A+B+C) / \Sigma(A+B+C+D) = (0.1+35+20) / (0.1+35+20+5) = 91.7\%; \text{ and } A=33.3 \text{ wt\%}.$$

And these values would lie inside the instant claimed ranges.

Therefore adding of a miniscule amount of MoS<sub>2</sub> would result in ratios for components that either lie inside, or lie close to instant claimed ranges, and prima facie obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) and Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

The component pigment ratios further meet the ratio limitation in claims 46-47 and 52; and composition/coating in claim 69; and composition in claim-74 and 80.

With regard to claims 33-35, 37-45 and 48-49, the prior art teaches a coating of with 2-5 micron coating, whereby the particles present in the coating are necessarily less than 2-5 micron in diameter for a monolayer film over a surface with a 2-5 micron thick, and the instant claimed particle sizes would be obvious. With regard to claim-45, the particle size of the particles vary from sub-micron to the thickness of the film (for a monomolecular film) and the particle size ratio between particles A and C would overlap with the instant claimed ratio of 0.1-4 (for equi-sized particles, the ratio would be 1.0) and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

With regard to claim 51, the prior art teaches adding carbon black.

With regard to claim 53, the prior art teaches adding graphite and molybdenum disulfide.

With regard to claims 54-55, the range of not more than 0.5 wt% in claim-54 includes  $0 \leq x \leq 0.5$  and the range of not more than 0.5 wt% in claim-55 includes  $0 \leq x \leq 0.5$ ; makes the component optional and Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure [MPEP 2111.04 [R-3]].

With regard to claim 56, the prior art does not add wax or wax-like substance.

With regard to process claims 57-69 and 78, the prior art further teaches making the coating composition by mixing the components till homogeneous (CI-6, Ln 25-33). The composition was applied over a steel sheet metal that was cleaned, optionally chromated <precoated> and then coated with 2-5 micron coating, and drying the coating at a peak metal temperature of 180-235C (CI-6, Ln 9-17). With

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regard to the process steps in claims 60-63, the examiner asserts that the prior art coating will be either same or substantially same as that produced by the claimed process steps.

2. Claims 31, 33-35, 37-49, 52-69, 74 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soltwedel (US 6,008,462).

Soltwedel teaches a mar resistant corrosion inhibiting weldable coating for metals and a coating composition comprising: conductive metallic particles such as Fe <component-C> with a particle size passing through -325 mesh (< 45 micron) in an amount of up to 50 wt% and preferably **30-40 wt%** (CI-9, Ln 34-60); and inorganic fillers such as oxides <component-A> in an amount of not greater than 25 wt%, and preferably **~10-20 wt%** (CI-10, Ln 60-CI-11, Ln 13); an internal lubricant such as MoS<sub>2</sub> <component-B> wherein the lubricant had a particle size of 0.01-30 micron and present in an amount of **0.2-1.5 wt%** total solids (CI-7, Ln 40-49); corrosion inhibitors such as strontium chromate <component-D> in an amount between **~3 and 10 wt%** and with a particle size of 2-6 micron (CI-11, Ln 34- 47); suspension agent such as magnesium aluminum silicate in an amount of **0.3-2 wt%** <component-D> (CI-10, Ln 15-15); organic binders such epoxy (CI-4, Ln 22-41; CI-6, Ln 46-66) crosslinker, solvent, catalysts such as tertiary amines <corrosion inhibitor which is not in particulate form> (CI-8, Ln 33), (Abstract, CI-4, Ln 22-41; CI-7, Ln 11-17; CI-8, Ln 25-30; CI-9, Ln 35-59; CI-10, Ln 38-40, Ln 60-67; CI 37-13-14, Table-1). The weldable coating was about 0.4-0.6 mil (10-15 micron) and a particle size of less than 10 micron for the oxides (component-A) would be obvious (CI-13, Ln 9-15). The ratio of components at the maximum of the preferred ranges would be  $(B+C)/(A+B+C) = (40+1.5)/(40+1.5+20) = 67.5 \text{ wt\%}$  and  $(A+B+C)/(A+B+C+D) = (40+1.5+20)/(40+1.5+20+10+2) = 83.7 \text{ wt\%}$ ; A= 27.2%, B=2.0%; C= 54.4%; D= 16.3%. Corresponding values at the low end would be  $(B+C)/(A+B+C) = 75.1$ ;  $(A+B+C)/(A+B+C+D) = 92.4$ ; A= 23%, B=0.05%; C= 69%; D= 7.6%

The prior art is silent about the exact particle size distribution of Iron particles per the claims 31, 74 and 80.

However, the prior art teaches the iron particles to have a size less than -325 sieve (44 micron) that encompasses the range from sub micron to 45 micron, and teaches a film with a thickness of 10-15

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micron whereby the presence of Fe particles will less than 10 micron size would be obvious. The pigments in the ratio of  $\Sigma(B+C)$  wrt  $\Sigma(A+B+C)$  being 0.25-99.5 wt% per claim-31 and pigments ratio of  $\Sigma(A+B+C)$  wrt  $\Sigma(A+B+C+D)$  being 30-99.0 wt% per claim-31 overlap with the prior art component ratios, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). This would further meet the ratio of pigments in claim-46. This will meet the composition/coating in claims 69-70, 74 and 80.

With regard to claims 33-35, 37-41, 43-44 and 48-49, the prior art teaches component particle sizes that overlap with the instant claimed ranges, and in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)

With regard to claims -42 and 45, the particle size of the respective prior art components overlap with the instant claimed components and the particle size ratios of the components when calculated as their ratios would obviously overlap with the instant claimed ranges for particle sizes and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

With regard to claim 52, the prior art teaches adding 100% as oxides <component-A>

With regard to claim 53, the prior art teaches adding molybdenum disulfide.

With regard to claims 54-56, the range of not more than 0.5 wt% in claim-54 includes  $0 \leq x \leq 0.5$  and the range of not more than 0.5 wt% in claim-55 includes  $0 \leq x \leq 0.5$ ; makes the component optional and Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure [MPEP 2111.04 [R-3]]. With regard to claim-56, the prior art does not add any waxy material (See Ex-1; CI 13-14).

With regard to process claims 57-68 and 78, and coating in claim-69, the prior art further teaches making the coating composition by mixing the components till homogeneous (CI-12, Ln 36-42). The



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composition was applied over a steel sheet metal <direct coating> or galvanized steel <precoated> and then coated with 2-5 micron coating, and drying the coating at a peak metal temperature of 180-235C (CI-12, Ln 44 – CI-13, Ln 15). With regard to the process steps in claims 60-63, the examiner asserts that the prior art coating will be either same or substantially same as that produced by the claimed process steps.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 31, 33-35, 38, 40, 46, 47, 56, 69, 74, 78 and 80 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of 104-108, 112, 116, 134 and 136 copending Application No. 10/5112223. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application and copending application are drawn to similar compositions having similar components and same utility as conductive coatings, while copending claims contain specific ranges of components and differ from the instant claims that do not have the same ranges, and it would be obvious to a person of ordinary skill in the art to optimize the composition for coating applications because they are well known in the art (See Wiechelhaus et al (WO 99/24545)).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Allowable Subject Matter***

Claims 36, 71-73, 75-77 and 79 are allowed.

The prior art of record neither teaches nor fairly suggestive of a composition containing the pigments in Applicants the ratio of  $\Sigma(A+B+C)$  wrt  $\Sigma(A+B+C+D)$  of 30 wt%, wherein the pigment-D is present in the amount of 70 wt%.

***Response to Arguments***

Applicants arguments filed 09/19/2008 have been fully considered. . Claim 32 was inadvertently indicated to be allowable in the last office action and that is being corrected in the present rejection. Applicant's argument that Wicheleus and Softwedel do not teach the claimed ratios is noted and has been addressed in the rejections cited above.

For the reasons set forth above applicants fail to patentably distinguish their composition over prior art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KALLAMBELLA VIJAYAKUMAR whose telephone number is (571)272-1324. The examiner can normally be reached on M-F 07-3.30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 5712721358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/  
Jan 04, 2009.

/Stanley Silverman/  
Supervisory Patent Examiner, Art Unit 1793

<b><i>Application Number</i></b> 	<b>Application/Control No.</b>	<b>Applicant(s)/Patent under Reexamination</b>	
	10/511,242	GROS ET AL.	
	<b>Examiner</b> KALLAMBELLA VIJAYAKUMAR	<b>Art Unit</b> 1793	